

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

007515.00001

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Application Number

10/516,522

Filed

November 30, 2004

First Named Inventor

Armando ANNUNZIATO

Art Unit

2617

Examiner

Rampuria, Sharad K

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

/Gary D. Fedorochko/

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

Signature

Gary D. Fedorochko

Typed or printed name

☒ attorney or agent of record.
Registration number 35,509

202-824-3000

Telephone number

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

June 16, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below.

☐ *Total of _____ forms are submitted.

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In re the Application of:	Atty. Docket	007515.00001
Armando ANNUNZIATO	No.:	
Confirmation No. 4483		
Application No.: 10/516,522	Group Art Unit:	2617
Filed: November 30, 2004	Examiner:	Rampuria, Sharad K
For:	METHOD FOR LOCATING MOBILE TERMINALS, SYSTEM AND COMPONENTS THEREFOR	

ARGUMENTS IN SUPPORT OF THE PRE-APPEAL REQUEST FOR REVIEW

Applicant respectfully submits that the rejections of record are based on clear factual deficiencies in the applied references. Accordingly, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established.

The Claimed Invention

The claimed invention generally relates to the geographic location of mobile terminals within telecommunication networks. Pending independent claims 1, 11, and 23 are described below, as is dependent claim 9:

Independent claim 1 relates to a method for locating a mobile terminal within a mobile communication network comprising at least one base station, the method comprising the steps of:

- measuring a set of physical dimensions that identify, according to respective functions, locating coordinates of said mobile terminal, the set of physical dimensions comprising any combination of physical dimensions selected from the group comprising
 - signal power received by the mobile terminal starting from the base station,
 - timing advance,
 - observed time differences, and
 - time of arrival,
- generating, starting from said set of physical dimensions and respective functions, a global locating error function which has a minimum for values of said locating co-ordinates corresponding with the position occupied by said mobile terminal,

seeking the minimum of said error function by varying at least one of said locating co-ordinates, and

locating said mobile terminal in correspondence with the value of said at least one locating co-ordinate corresponding to said minimum.

Dependent claim 9 recites features related to interrupting an iterative process when the absolute distance between two successive points is below a determined threshold value.

Independent claim 11 relates to a system for locating a mobile terminal within a mobile communication network comprising at least one base station, the system comprising at least a locating module configured to measure a set of physical dimensions that identify according to respective functions location co-ordinates of said mobile terminal, the set of physical dimensions comprising any combination of physical dimensions selected from the group comprising

signal power received by the mobile terminal starting from the base station,

timing advance,

observed time differences, and

time of arrival,

said locating module being configured to:

generate, starting from said set of physical dimensions and respective functions, a global locating error function which allows a minimum for values of said locating co-ordinates corresponding with the position occupied by said mobile terminal,

seek the minimum of said error function varying at least one of said locating co-ordinates, and

locate said mobile terminal in correspondence with the value of said at least one locating co-ordinate corresponding to said minimum.

Independent claim 23 relates to a computer readable medium having stored thereon instructions that, when executed, cause an apparatus to perform:

measuring a set of physical dimensions that identify, according to respective functions, locating coordinates of a mobile terminal, the set of physical dimensions comprising any combination of physical dimensions selected from the group comprising

signal power received by the mobile terminal starting from the base station,

timing advance,

observed time differences, and

time of arrival,

generating, starting from said set of physical dimensions and respective functions, a global locating error function which has a minimum for values of said locating co-ordinates corresponding with the position occupied by said mobile terminal,

seeking the minimum of said error function by varying at least one of said locating co-ordinates, and

locating said mobile terminal in correspondence with the value of said at least one locating co-ordinate corresponding to said minimum.

Rejections Under 35 U.S.C. § 103

Claims 1, 3, 5-11, 13, and 15-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. publication no. 2003/0096622 to Moilanen (“Moilanen”) in view of U.S. patent no. 6,252,543 to Camp (“Camp”). Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Moilanen and Camp and further in view of U.S. publication no. 2001/0022558 to Karr, Jr., et al. (“Karr”). Claims 26-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Moilanen and Camp and further in view of U.S. patent no. 7,000,015 to Moore et al. (“Moore”). These rejections are traversed below.

The Office Action at pages 9-10 (“Response to Amendments & Remarks”) cites to Camp at Abstract and col. 2, lines 16-22, wherein Camp describes methods and arrangements combining terrestrial-based location techniques with satellite-based location techniques, resulting in an alleged improvement in accuracy, reliability, and accessibility. The Office Action contends that such objectives are in the same field of endeavor as Moilanen, and uses that contention as a basis for asserting that the combination of references is proper.

The Office has used impermissible hindsight in combining Moilanen and Camp. Indeed, the mere fact that references can be combined may not be sufficient to establish *prima facie* obviousness. MPEP § 2143 (III.).

At pages 7-9 of Applicant's "Amendment and Request for Reconsideration" filed February 17, 2009, Applicant discussed how a combination of Moilanen and Camp is improper with respect to features recited in claims 1, 11, and 23. Those remarks are incorporated herein by way of reference. In short, correlator 50 described in Camp eliminates clock synchronization error, and as such, when reading the references as a whole, one skilled in the art would not have had any apparent reason to combine the references in the manner suggested by the Office Action to also generate, starting from the set of physical dimensions and respective functions, a global locating error function which has a minimum for values of the locating co-ordinates corresponding with the position occupied by a mobile terminal, and seek a minimum of the error function by varying at least one of the locating co-ordinates. Indeed the clock synchronization techniques of Camp are analogous to the shortcomings of the prior art techniques. *See, e.g.*, the filed specification at page 3, lines 7-12.

Notably, the remarks provided in the Office Action at pages 9-10 ("Response to Amendments & Remarks") merely provide an alleged (and generalized) rationale for combining the references, but do not in any meaningful way address or rebut the discussion included in Applicant's "Amendment And Request For Reconsideration" filed February 17, 2009. *See* MPEP § 707.07(f) (providing that where the applicant traverses any rejection, *the examiner should*, if he or she repeats the rejection, *take note of the applicant's argument and answer the substance of it*). Indeed, the remarks included in the Office Action at pages 9-10 ("Response to Amendments & Remarks") merely amount to an assertion that the references can be combined, but the remarks do not address why one of ordinary skill in the art would have formulated the combination, particularly in view of Applicant's discussion countering such a contention with respect to the specific features recited in claims 1, 11, and 23.

The combination of Moilanen and Camp is improper for at least the reasons discussed above. As Moilanen and Camp, when taken in the singular, each fail to describe all of the features recited in independent claims 1, 11, and 23, the referenced claims are allowable.

With respect to claim 9, the Office has repeatedly failed to address Applicant's remarks. See pages 9-10 of Applicant's "Amendment and Request for Reconsideration" filed February 17, 2009 (discussing how claim 9 is distinguishable over Moilanen and also noting the Office's failure to answer the substance of Applicant's remarks with respect to claim 9). See also the Office Action at page 5 (with respect to claim 9, once again merely citing to Moilanen at paragraph [0063] without any additional explanation) and pages 9-10 ("Response to Amendments & Remarks") (lacking any discussion whatsoever regarding claim 9). Moreover, as discussed at pages 9-10 of Applicant's "Amendment and Request for Reconsideration" filed February 17, 2009, the continued rejection of claim 9 based on Moilanen is inconsistent with Applicant's representatives' understanding of the agreement reached with the Examiner during the telephone interview on February 11, 2009. Clarification in the next communication is respectfully requested.

CONCLUSION

For at least the above reasons, the rejections of pending claims 1, 3, 5-11, 13, and 15-27 in the Final Office Action is improper, because a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established. A pre-appeal finding that these claims are allowable is respectfully requested.